IN THE CLAIMS

Please amend the claims as follows. Presented below is a complete listing of claims in the revised format showing markings as set forth by the U.S. Patent and Trademark Office on January 31, 2003.

1.   (Original) A method for de-screening a halftone image, comprising:

performing a screen conversion filter upon a scanned representation of said halftone image to produce an intermediate image; and

performing a line smoothing filter upon said intermediate image to produce an output image.

2.   (Original) The method of claim 1, wherein said screen conversion filter utilizes a 3 by 3 coefficient matrix.

3.   (Original) The method of claim 2, wherein said coefficient matrix is diagonal along the lower right to upper left direction.

4.   (Original) The method of claim 3, wherein coefficients $c_{(-1, 1)} = c_{(1, -1)} = 1$, and coefficient $c_{(0, 0)} = 2$.

5.   (Original) The method of claim 2, wherein said coefficient matrix is diagonal along the lower left to upper right direction.

6. (Original) The method of claim 3, wherein coefficients $c_{(-1, -1)} = c_{(1, 1)} = 1$, and coefficient $c_{(0, 0)} = 2$.

7. (Original) The method of claim 1, wherein said line smoothing filter utilizes a 3 by 3 coefficient matrix.

8. (Original) The method of claim 7, wherein said coefficient matrix is diagonal along the lower right to upper left direction.

9. (Original) The method of claim 8, wherein coefficients $c_{(-1, 1)} = c_{(1, -1)} = 1$, and coefficient $c_{(0, 0)} = 2$.

10. (Original) The method of claim 9, wherein said coefficient matrix is diagonal along the lower left to upper right direction.

11. (Original) The method of claim 10, wherein coefficients $c_{(-1, -1)} = c_{(1, 1)} = 1$, and coefficient $c_{(0, 0)} = 2$.

12. (Original) The method of claim 1, wherein said screen conversion filter passes low-frequencies, passes high-frequencies along a diagonal line from lower left to upper right, and attenuates high-frequencies away from said diagonal line.

13.   (Original) The method of claim 1, wherein said screen conversion filter passes low-frequencies, passes high-frequencies along a diagonal line from lower right to upper left, and attenuates high-frequencies away from said diagonal line.

14.   (Original) The method of claim 1, wherein said line smoothing filter passes low-frequencies, passes high-frequencies along a diagonal line from lower left to upper right, and attenuates high-frequencies away from said diagonal line.

15.   (Original) The method of claim 1, wherein said line smoothing filter passes low-frequencies, passes high-frequencies along a diagonal line from lower right to upper left, and attenuates high-frequencies away from said diagonal line.

16.   (Currently Amended) A method for de-screening a halftone image, comprising:

performing a single convolution filter upon a scanned representation of said halftone image to produce an output image, wherein a result of said single convolution filter equals the combined results obtained from a ~~resulting~~ convolution of a separate screen conversion filter and a line smoothing filter.

17.   (Original) The method of claim 16, wherein said single convolution filter passes low-frequencies, passes high-frequencies at a central area, and attenuates high-frequencies along a horizontal axis and a vertical axis.

18.   (Original) A computer-readable medium having stored thereon sequences of instructions, the sequences of instructions including instructions which, when executed by a processor, causes the processor to perform various processing, the sequences of instructions comprising:

a first sequence to perform a screen conversion filter upon a scanned representation of a halftone image to produce an intermediate image; and

a second sequence to perform a line smoothing filter upon said intermediate image to produce an output image.

19.   (Original) A computer-readable medium having stored thereon sequences of instructions, the sequences of instructions including instructions which, when executed by a processor, causes the processor to perform various processing, the sequences of instructions comprising:

a first sequence to perform a single convolution filter upon a scanned representation of a halftone image to produce an output image, wherein said single convolution filter equals the resulting convolution of a screen conversion filter and a line smoothing filter.

20.   (Original) A system for de-screening a halftone image, comprising:

a memory to store an input image from a halftone print; and

a processor to perform a screen conversion filter upon said input

image and create an intermediate image, and to perform a

line smoothing filter upon said intermediate image and

create an output image.

21.   (Original) A method for de-screening a halftone image, comprising:

converting dots of said halftone image into parallel lines of an intermediate

image; and

smoothing said parallel lines of said intermediate image into a final image.

22.   (Original) The method of claim 21, wherein said parallel lines are at an

approximately 45 degree angle with respect to a side of said intermediate image.